

JP RS 72112

25 October 1978

WORLD EPIDEMIOLOGY REVIEW

No. 111

DISTRIBUTION STATEMENT A

Approved for Public Release
Distribution Unlimited

Reproduced From
Best Available Copy

U. S. JOINT PUBLICATIONS RESEARCH SERVICE

20000412 140

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22151. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available through Bell & Howell, Old Mansfield Road, Wooster, Ohio, 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

25 October 1978

WORLD EPIDEMIOLOGY REVIEW

No. 111

CONTENTS

PAGE

HUMAN DISEASES

AUSTRALIA

Teachers, Pupils Struck by Respiratory Virus (THE WEST AUSTRALIAN, 21 Sep 78)	1
Virus Hits Port Hedland Schools (THE WEST AUSTRALIAN, 29 Sep 78)	2

BRAZIL

Briefs Outbreak of Meningitis	3
----------------------------------	---

COSTA RICA

Briefs Malaria Cases Detected	4
----------------------------------	---

CUBA

Briefs Dengue Control	5
--------------------------	---

DOMINICAN REPUBLIC

Briefs Cuban Polio Vaccines	6
--------------------------------	---

GABON

Briefs Polio Incidence	7
---------------------------	---

CONTENTS (Continued)

Page

HONDURAS

Briefs

Dengue Fever Controlled	8
-------------------------	---

INDIA

Briefs

Cholera, Enteritis in West Bengal	9
-----------------------------------	---

INDONESIA

Fifty-Eight Deaths Attributed to Malaria-Type Disease

(KOMPAS, 12 Aug 78)	10
---------------------------	----

Increased Efforts in Combating Gastroenteritis Urged

(B. Sintorini; KOMPAS, 20 Jul 78)	12
---	----

Efforts To Combat Tuberculosis in Jakarta Reported

(KOMPAS, 31 Jul 78)	15
---------------------------	----

KENYA

Medical Authorities Concerned About Aflotoxin Contamination

(SUNDAY NATION, 1 Oct 78)	17
---------------------------------	----

Briefs

Meningitis Deaths	20
-------------------	----

LAOS

Briefs

Luang Prabang Malaria Suppression	21
Meuang Chomphet Health Work	21

MALAYSIA

Effective Cure Found for Scrub Typhus Fever

(Lim Eng Been; NEW STRAITS TIMES, 16 Aug 78)	22
--	----

Briefs

Dengue Fever, Cholera	23
Cholera in Kelantan	23

MEXICO

Briefs

Eradication of Diseases	24
-------------------------	----

BIBLIOGRAPHIC DATA SHEET		1. Report No. JPRS 72112	2.	3. Recipient's Accession No.
4. Title and Subtitle WORLD EPIDEMIOLOGY REVIEW, No. 111		5. Report Date 25 October 1978		
6.				
7. Author(s)		8. Performing Organization Rept. No.		
9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201		10. Project/Task/Work Unit No.		
		11. Contract/Grant No.		
12. Sponsoring Organization Name and Address As above		13. Type of Report & Period Covered		
		14.		
15. Supplementary Notes				
16. Abstracts The report contains worldwide press and radio coverage of incidence, outbreak, and other aspects of human, animal, and plant diseases, insect pests and control, sanitation conditions, immunization and public health programs.				
17. Key Words and Document Analysis. 17a. Descriptors Worldwide Clinical Medicine Environmental Biology Hygiene and Sanitation Microbiology				
17b. Identifiers/Open-Ended Terms				
17c. COSATI Field/Group 2E, 6E, 6F, 6I, 6M		17d. Security Class (This Report) UNCLASSIFIED		21. No. of Pages 64
18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22151		19. Security Class (This Page) UNCLASSIFIED		22. Price

CONTENTS (Continued)	Page
MOZAMBIQUE	
Briefs	
Lassa Fever Study	25
NEW ZEALAND	
Drug Resistant Virus Introduced From Pacific Islands (The Press, 25 Sep 78)	26
NIGERIA	
Malaria Statistics Reported (Ibrahim N. Salihu; NEW NIGERIAN, 3 Oct 78)	27
PANAMA	
Briefs	
Reduction of Malaria	28
PORTUGAL	
Gastroenteritis Outbreak in Alentejo Region (O PRIMEIRO DE JANEIRO, 27 Sep 78)	29
TANZANIA	
Briefs	
Cholera Outbreak in Morogoro	31
THAILAND	
Flooding Casualties; Cholera Outbreak Reported (POST, 4 Oct 78)	32
ZAIRE	
Briefs	
Cholera Epidemic Threat	34
ZAMBIA	
Statistics Reported on Childhood Deaths From 'Killer Diseases' (SUNDAY TIMES OF ZAMBIA, 1 Oct 78)	35
Immunologist Claims Discovery of Trypanosomiasis Vaccine (ZAMBIA DAILY MAIL, 3 Oct 78)	36

CONTENTS (Continued)

Page

Briefs

Tsetse Carries Own Antidote 37

ANIMAL DISEASES

INDONESIA

Foot-and-Mouth Disease in Riau Province
(SINAR HARAPAN, 1 Aug 78) 38

LAOS

Briefs

Kanthabouli Veterinary Work 40
Outhoumphon Veterinary Work 40

URUGUAY

Government Takes Measures Against Swine Fever
(EL DIA, 17, 18 Aug 78) 41Presidential Decree on Prevention Measures
Detection of Clandestine Swine Breeders

PLANT DISEASES AND INSECT PESTS

INTER-AFRICAN AFFAIRS

Briefs

Desert Locust Control Measures 45

AUSTRALIA

Briefs

Fleas To Be Released 46

INDONESIA

Coconut Palms in East Indonesia Reported Ravaged by Pests
(KOMPAS, 26 Jul 78) 47

LAOS

Briefs

Meuang Soukhouma Pest Eradication 50
Luang Prabang Pest Eradication 50

CONTENTS (Continued)	Page
NEW ZEALAND	
Fungus Suspected Killer of Forest Vegetation (The New Zealand HERALD, 19 Sep 78)	51
NIGERIA	
Briefs	
Pest Control	52
PAKISTAN	
Briefs	
Locusts in Sind	53
PORTUGAL	
Briefs	
Swine Pest Reported	54
SWEDEN	
Conquering Spruce Bark Beetle Infestation (Sven Hallen; DAGENS NYHETER, 24 Sep 78)	55
ZAMBIA	
Wheat Eating Birds Invade Fields (ZAMBIA DAILY MAIL, 29 Sep 78)	58
Briefs	
Insect, Rat Damage	59

AUSTRALIA

TEACHERS, PUPILS STRUCK BY RESPIRATORY VIRUS

Perth THE WEST AUSTRALIAN in English 21 Sep 78 p 4

[Text]

A respiratory virus struck many schools and colleges in Perth this week, causing widespread absenteeism among staff and pupils.

The virus, known as the respiratory syncytial virus, is not regarded as serious, though it can be worrying in young children.

A Perth doctor said yesterday that the virus usually kept sufferers in bed for several days with a sore throat, a headache, aches and pains and a head and throat infection.

The doctor said he treated about seven young adults suffering from the virus yesterday.

More than half the boarding-school enrolment at Wesley College—about 90 boys—went down with the virus this week. A similar number of day

boys have been absent.

One of the worst affected schools is the Lockridge High School which had 250 children absent on Tuesday from a total enrolment of 700. Teaching staff are also sick.

More than 65 children were absent at Scotch College on Tuesday—more than four times as many for this time of year, according to a school spokesman.

A spokesman for Aquinas College said that absenteeism among its students had been between 20 and 30 per cent this week.

"This type of virus usually strike pupils during the second term," he said. "It is quite uncommon for the third term."

"But it does not seem as severe as in other years. Students spend about three days in bed and another day recovering."

CSO: 5400

AUSTRALIA

VIRUS HITS PORT HEDLAND SCHOOLS

Perth THE WEST AUSTRALIAN in English 29 Sep 78 p 4

[Text]

Schools in the Port Hedland area have been affected by a respiratory virus that has struck many Perth schools.

The principal of the Port Hedland Senior High School, Mr B. Cohen, said yesterday that 200 pupils, from an enrolment of 730 were absent.

About 140 children were away on Monday, 230 on Tuesday and 205 on Wednesday.

The teaching staff had also been affected. Eight of the staff of 56 were absent on Monday.

Mr Cohen said that children affected by the

virus suffered vomiting, high temperatures, diarrhoea and a sore throat.

Mr R. Laing, the deputy warden of Hardy House, one of two hostels attached to the school, said that about 20 children were confined to bed yesterday.

Earlier in the week, about 30 children were ill.

The manager of Moorgunya hostel, Mr R. Trow, said that about seven children out of 41 were ill yesterday.

The Baler primary school in Port Hedland yesterday had 85 children absent from an enrolment of 530.

CSO: 5400

BRAZIL

BRIEFS

OUTBREAK OF MENINGITIS--Health Minister Paulo Almeida Machado has created a task force to investigate the reported cases of meningitis in Rio de Janeiro. [Brasilia Domestic Service in Portuguese 2200 GMT 16 Oct 78 PY]

CSO: 5400

COSTA RICA

BRIEFS

MALARIA CASES DETECTED--Of the 202 malaria cases reported so far this year throughout the country, 55 were imported from Nicaragua and 130 were detected in Limon. The Limon outbreak began with five cases brought in from Nicaragua and spread to the local residents. Recently, three new cases were detected in Guanacaste among Nicaraguan workers who had entered the country illegally. [San Jose Radio Reloj in Spanish 1200 GMT 13 Oct 78 PA]

CSO: 5400

CUBA

BRIEFS

DENGUE CONTROL--A meeting for the purpose of checking work assignments in Havana aimed at controlling the disease called dengue was held in the Havana People's Power office. Dr Uvenlino Moreno, director of Hygiene and Epidemiology, gave a detailed explanation of the effect the disease has had on the province and emphasized the need to follow the measures developed to combat it. Among these he pointed out the need to eliminate unsuitable containers and to protect drinking water. On closing the meeting, Pedro Chavez, chairman of the provincial People's Power assembly, urged those in attendance to make greater efforts in September and October to control and eradicate the disease. [Text] [Havana JUVENTUD REBELDE in Spanish 29 Aug 78 p 2] 11989

CSO: 5400

DOMINICAN REPUBLIC

BRIEFS

CUBAN POLIO VACCINES--Santo Domingo, 1 Oct (EFE)--Over 400,000 doses of polio vaccine donated by the Cuban Health Ministry were delivered to Dominican health authorities today. The vaccines, obtainable only in Cuba and the USSR, will be used to control recent outbreaks. [Madrid EFE in Spanish 1649 GMT 1 Oct 78 PA]

CSO: 5400

GABON

BRIEFS

POLIO INCIDENCE--Following numerous recently recorded cases of rachitis and paralysis of limbs in younger children in the department of Lovetsi-Wano (Lebamba province) medical authorities in this region of the Ngannie have launched a vast operation of antipolio vaccinations in the past few days, organized by the authorities in the new clinic in Bangolo. In effect, since last 25 July, all children less than 3 years old must undergo the scarification which immunizes them against this formidable disease. The vaccinations are administered in three doses: The first was administered to the children on 25 July, the second will be 22 August, and the final will be given next 26 September. The importance of this vaccination campaign should not be lost upon the parents, whom the doctors have invited to be present at each session. The total cost of all this has been fixed at the reasonable sum of 300 Fr [CFA]. [Text] [Libreville L'UNION in French 7 Aug 78 p 1]

CSO: 5400

HONDURAS

BRIEFS

DENGUE FEVER CONTROLLED--San Pedro Sula (Honduras), 12 Oct (ACAN-EFE)--
Health authorities in this city in northern Honduras announced today that
dengue fever has been controlled and its devastating effects reduced to a
minimum. [Panama City ACAN in Spanish 1945 GMT 12 Oct 78 PA]

CSO: 5400

INDIA

BRIEFS

CHOLERA, ENTERITIS IN WEST BENGAL--There is a serious outbreak of cholera and enteritis in the flood affected areas of West Bengal. A report received from Kolaghat on 5 October states that there is a large-scale outbreak of cholera and enteritis in the area. Nani Bhattacharya, West Bengal Minister of Health, told newsmen at the writers' building on the same day that reports reaching him state that already 100 persons have died of cholera and enteritis in Kolaghat. [Calcutta ANANDA BAZAR PATRIKA in Bengali 6 Oct 78 p 1 BK]

CSO: 5400

INDONESIA

FIFTY-EIGHT DEATHS ATTRIBUTED TO MALARIA-TYPE DISEASE

Jakarta KOMPAS in Indonesian 12 Aug 78 pp 1, 13

[Article: "Disease Which Has Killed 58 People in Sepaku Semoi Still Unknown"]

[Excerpt] The source of the disease which has caused the death of 58 transmigrants at the Sepaku Semoi project in Balikpapan Seberang still hasn't been discovered.

The Supaku Semoi transmigration project, which consists of five units, has 2,500 families or around 11,131 people from East Java, West Java and Yogyakarta. The five units are: Sepaku I with 451 families (1,475 people) from metro Jakarta, West Java and East Java was occupied in 1976; Sepaku II with 500 families (2,235 people) from East Java was settled in 1977; Sepaku III with 500 families (2,226 people) from Central Java, Yogyakarta, West Java, and East Java was occupied in 1977; Semoi I with 500 families (2,322 people) from East Java was settled in 1978 and Semoi II with 500 families or around 2,263 people from West Java and East Java was occupied the beginning of 1978.

According to KOMPAS sources in Balikpapan, the malaria-type disease whose source has still not been discovered, has struck the Semoi II project. This agrees with the report of Commission A of the East Kalimantan regional government which visited there at the end of July.

The only doctor, who is stationed at the public health center to provide health service for the five project units, said that the mosquitoes examined thus far clearly don't carry malaria.

Dr Otten, a graduate of the medical school of the University of North Sumatra, feels that the malaria has been carried by the people who cleared the forests when preparing the sites for the units. "But investigations on the disease are still being carried out," he said.

KOMPAS sources in Samarinda said that in the Sepaku Semoi project there is a type of mosquito resistant to DDT. This report has been confirmed by chief of the regional office of the Dir Gen of transmigration for East Kalimantan, Drs Syafruddin Astin.

According to Kemin Riyadi, a member of the East Kalimantan regional government who visited the area, besides malaria, there were 77 people suffering from "dusk" disease, which is thought to cause blindness. He said those who have the "dusk" disease can't leave their houses after 1800 hours as they can't see clearly after that.

Dr Otten, who has four medics as assistants, feels that the "dusk" eye disease is caused by poor nutrition. "Investigations are still being carried on to find the source of this disease also," he added.

7785
CSO: 5400

INDONESIA

INCREASED EFFORTS IN COMBATING GASTROENTERITIS URGED

Jakarta KOMPAS in Indonesian 20 Jul 78 pp 6, 7

[Article by Dr B. Sintorini: "Gastroenteritis--Several Approaches to Solving the Problem"]

[Excerpts] As long as people are without a generally available supply of safe drinking water, and as long as they pay little attention to keeping their environment clean, gastroenteritis will continue to break out.

Recently, many cases of gastroenteritis have occurred and been reported. We have heard of outbreaks of gastroenteritis in Simelu, Nias and the Mentawai Islands. We have also heard of outbreaks in villages considered to be advanced, such as Batu-Malang and Sumedang, and we have even heard of an outbreak some time ago in the Setiabudi Subdistrict, in the heart of Indonesia's capital city. So it is apparent that gastroenteritis can occur anywhere, and that it attacks primarily those who ignore the rules for a healthy environment.

Gastroenteritis can be caused by a number of agent-bacteria, viruses and so on. Not all gastroenteritis is caused by the cholera microbe, but both cholera and gastroenteritis spread in the same way. "Cholera marches with man," said a WHO expert. This means gastroenteritis and cholera are spread through the agency of human beings. The better relations or communication, the more easily the disease is spread.

Ways to Overcome the Problem

Under present environmental health conditions, we cannot hope to prevent outbreaks of gastroenteritis. Deaths are the worst results of such outbreaks. They occur because gastroenteritis drains water and salts from the body tissue of the victim through vomiting and diarrhea.

Present-day technology has made the prevention of death possible through painless and inexpensive means. Every person who suffers from gastroenteritis must drink as much of a solution of oralit sedini as possible. Oralit is a specific mixture of glucose, table salt, baking soda and calcium chloride. The oralit solution replaces the water and body salts which have been lost and the victim will not become seriously ill. Death can thus be prevented.

Because gastroenteritis is widespread, oralit must be available in remote areas, and not only in public health centers or pharmacies. It should be made available in roadside stalls, at the home of the village chief and other places. Oralit must also be included in the medical bags of health officials and workers assigned to travel through the villages. To ensure that it is available everywhere, the government should provide subsidies to non-governmental agencies so that oralit can be distributed to remote areas just as aspirin, cajuput oil, medicinal herbs and other medications are now. Some way to replace oralit with products already found in the home, such as sugar and table salt, must be developed. If administered precisely, these products can be used as a temporary substitute for oralit, and they are equally beneficial.

Only seriously ill persons need infusions. The oralit solution must be drunk with the infusion to economize on this expensive remedy. With existing technology, no person suffering from gastroenteritis need die.

Reporting

Although it is difficult to prevent an outbreak of gastroenteritis, its spread can be limited by means which have long been known. Success or failure in limiting its spread depends very much on when ameliorative measures are taken. The earlier such steps are taken, the less the spread of a gastroenteritis outbreak. Therefore, early reporting by health officials and society is very important.

Obviously, the more isolated an outbreak region, the more delay there will be in reporting the disease. Steps taken by the authorities to prevent its spread, therefore, will be delayed also. For that reason many deaths and large-scale outbreaks of gastroenteritis occur in isolated regions. As indicated earlier, the number of deaths can be reduced if oralit is already available in remote regions and the population is aware of how to use it.

Frequently people consider gastroenteritis a minor disease, and ignore it. In some areas people feel embarrassed if gastroenteritis breaks out, or they take an outbreak lightly. Therefore, they do not report it, or postpone reporting it. After many persons fall ill and die, there is panic. Only then is the report submitted. The price of this delay is many deaths. A uniform reporting system by the villages to the regency must be developed jointly by health authorities and the village administrators, and if this system is further supported by mobile teams or health centers, outbreaks of the disease can easily be confined. So a combination of a good reporting system and health services able to reach remote areas will make possible successful handling of an outbreak. Sufficient health personnel and suitable financing must support these measures.

Toilets and Drinking Water

If, beginning today, all Indonesian inhabitants were to use toilets or a safe drinking water supply, or both, the number of gastroenteritis victims next year would drop to 30 percent of those suffering from the disease this year. Within 2 years gastroenteritis could be eradicated. Nevertheless,

the provision of toilets and a safe water supply are complex and expensive problems. They involve socio-cultural factors, economic capability and other factors. Imagine how difficult it will be to change the habit of defecating in the garden or in rivers, even after toilets are provided. It is the same with trying to get people to drink boiled water. A family will choose to buy a shirt or food for the children rather than use the money to build a toilet.

Recently the government launched a program to develop safe drinking water and family toilet (samijaga) facilities. To assume this will continue to be handled by the government implies that the government will take on a burden it cannot possibly handle. However, if government efforts were augmented with more intensive health information, the burden would be lighter because of the community effort it evoked. Good health information, however, must be combined in a package with the personal samijaga program. Health information programs in Indonesia frequently are very poor.

According to a Department of Health survey, only 6 percent of Indonesians enjoy safe drinking water. It is estimated that 15 to 20 years are required to achieve 100 percent use of safe drinking water. So, if what the ministry says is true, in 15 to 20 years we will be free of gastroenteritis outbreaks. This time period could be shortened through an intensive and systematic information program.

Previously, the only inoculations available against gastroenteritis were those for dysentery, paratyphus and cholera. Dysentery vaccine is not effective against gastroenteritis, nor is that for paratyphus. Only the cholera vaccine is effective. Actually, the only vaccine older than that for cholera is the smallpox vaccine. Cholera vaccine has been used since the beginning of the 20th century. Debate arose as to its effectiveness after it was introduced, however. In 1960 WHO evaluated the cholera vaccine and found that it gives only 40 percent immunity for 5 months. The cholera vaccine is not very effective if compared with the smallpox vaccine, which provides 100 percent immunity for more than 8 years.

Many experts believe cholera vaccine should not be used any longer to provide immunity against gastroenteritis because it does not provide effective immunity, it is expensive, it provides false security and frequently those vaccinated overlook the possibility of taking other more beneficial and important measures. Available funds could be used to better advantage for more beneficial measures.

Misunderstanding often occurs because people are not well-informed. Many, lacking full understanding, ask to be inoculated if gastroenteritis breaks out. Not infrequently, requests for such inoculations are instigated by health officials who themselves are not knowledgeable. Misunderstanding can usually be prevented by making clear, precise information available.

The cholera vaccine available today can be said to be ineffective against gastroenteritis. Moreover, people's health centers have now been established in most areas, and most of them can take more effective measures against this disease.

6804
CSO: 5400

INDONESIA

EFFORTS TO COMBAT TUBERCULOSIS IN JAKARTA REPORTED

Jakarta KOMPAS in Indonesian 31 Jul 78 p 2

[Article: "About 180,000 Tuberculosis Victims in Jakarta"]

[Text] At the official opening of a respiratory disease clinic on Baladewa Street, Tanah Tinggi (Central Jakarta) on Saturday morning [29 July], Tjokropranolo, governor of the special capital region of Jakarta, said that there are 180,000 tuberculosis victims in Jakarta, 25,000 of whom suffer from an infectious type of this disease. He also pointed out that this disease generally spreads to adults between the ages of 20 and 45.

Tjokropranolo felt there was an urgent need to overcome this urban tuberculosis problem. The special capital region has made attempts to combat the disease, including providing inoculations of tuberculosis serum to 80 percent of the children in Jakarta under age 14. This is very significant, particularly for future attempts to combat the disease.

Jakarta has also established 34 puskesmas [people's health centers] at the subdistrict level to serve tuberculosis patients, and a special 75-bed hospital for respiratory disease patients, although it is felt that insufficient effort has been made.

The governor happily welcomed the establishment of the special tuberculosis clinic in Tanah Tinggi and said he hoped that the clinic would provide information on tuberculosis, in addition to treating patients in the community. It is also expected that this clinic will serve as a laboratory to find the best means of combating tuberculosis in Jakarta.

The clinic, which was built by PPTI (Indonesian Center for Combating Tuberculosis) volunteers, has been operating for a long time, originally as a puskesmas. The clinic, which is the only clinic of its kind in Jakarta, serves respiratory disease patients only, and is staffed by four specialists, headed by Dr Halim Danususanto.

Dr Halim told reporters that this clinic is visited by about 70 persons daily. It is located in a densely populated area, but neighbors of the clinic need

not be concerned because maximum protection is taken, for instance, by using ultraviolet lamps. Nevertheless, he admitted that nurses and clinic personnel have contracted tuberculosis. Before being employed, each potential employee must have had his lungs examined and must take an INH pill daily while employed.

Halim told the governor about the need for a fluoroscope which would screen out 80 percent of those afflicted with tuberculosis; ordinary scopes screen out only 25 percent. There is only one fluoroscope in Jakarta, at the Navy Hospital. A fluoroscope costs 2 million rupiah. The governor did not reply when asked by reporters whether the special capital region would contribute such a fluoroscope to the clinic.

6804

CSO: 5400

KENYA

MEDICAL AUTHORITIES CONCERNED ABOUT AFLATOXIN CONTAMINATION

Nairobi SUNDAY NATION in English 1 Oct 78 p 5

[Text] There is growing concern among medical authorities in Kenya that a widespread threat exists to public health as a result of extensive Aflatoxin contamination of pet and animal foods, and possibly human foods as well.

Aflatoxins are one of a group of highly toxic poisons which are produced by some moulds and fungi which grow on a wide variety of agricultural products such as maize, barley, wheat, oats, ground nuts, soys beans and sunflower, and which also exist in the oils and meals manufactured from these products.

The existence of the Aflatoxin contamination first came to light when more than one hundred dogs that had been fed on grain-based pet foods began dying.

Veterinary examinations showed that all of the dogs had died as a result of complete liver-failure, and subsequent tests of the dog food showed that in some cases the Aflatoxin contamination was well over one thousand parts per billion which compares with the maximum contamination levels allowed in human and animal foods in the United States, of less than 25 parts per billion.

Concern as to the human health risk began growing when it was realised that some of the companies which manufactured the dog food, also manufactured food for other animals, and for humans as well.

Since the initial dog deaths, there have been reports of deaths of quail and ducks being bred for restaurant use, after they had been fed on commercial chicken food, and it's known that at least one of the dogs that died had not been fed on commercial dog food but on posho.

The Kenyan Ministry of Health has now begun investigations to try and identify and eliminate the source of the contamination, and some manufacturers have withdrawn their pet foods from the market.

However this does not reduce the concern of medical authorities as to the health risk of humans, either from the direct intake of Aflotoxin contaminated food or from eating products such as milk or eggs, from animals that may have consumed contaminated food.

While large quantities of Aflotoxin can cause death, small quantities can have equally dangerous long term effects.

Extensive research in Kenya and other parts of Africa, and also in Asia has shown that the incidence of liver cancer is closely related to the levels of Aflotoxin in the diet.

A document compiled by a World Health Organisation (WHO) task group, for a conference on mycotoxins held in Nairobi in September 1977, stated that "available epidemiological data...reveals positive indications between the frequency of Aflotoxin contamination of foods offered for sale in markets and present in home stores and the frequency of liver cancer in the study areas."

A study in Kenya was carried out in three different localities with distinct climatic environments which provided different natural levels of Aflotoxins in the diet.

Generally speaking, the mould or fungal species which produce Aflotoxins thrive in hot humid conditions, and are less prolific in higher colder altitudes.

The Kenyan study, which was carried out at three different altitude levels at Murang'a, about 50 miles north of Nairobi, showed that at the lower altitudes where conditions were hotter and more humid, and where there was a consistently high daily intake of Aflotoxin contaminated food, there was a high incidence of liver cancer...four cases per year per hundred thousand population.

At the middle range, where Aflotoxin contamination of the food was approximately half that of the low altitude, the incidence of liver cancer had dropped to 2.5 cases per hundred thousand population.

And at the highest altitude where the Aflotoxin intake was again reduced by half, the liver cancer incidence dropped to 1-2 per hundred thousand population.

Similar studies carried out in Swaziland and Thailand produced comparative results.

The WHO report notes that while Aflotoxins primarily cause severe liver damage. Aflotoxin has also been found in the heart, kidney and brain tissues of affected individuals, and some medical research suggests that

Aflotoxins have been responsible for kidney and brain damage, although further research is necessary to confirm that Aflotoxins are responsible in such cases.

There are also indications that Aflotoxins consumed by pregnant women may cross the placental barrier, in other words enter the bloodstream of the unborn child, but again this has not been conclusively proved.

The WHO report also warns that nursing babies may receive dangerous levels of Aflotoxins from their mother's milk.

Research in animals has shown that animals with poor nutrition are more susceptible to liver cancer from Aflotoxins, but not sufficient research has been done with humans to indicate if a similar pattern occurs.

Aflotoxins occur in a wide range of foods such as ground nuts of peanuts, coconuts, manioc, common beans, all grains and grain meals, cocoa, green coffee beans, sunflowers, soya beans, and various tree nuts such as almonds, pistachios and walnuts.

The mould or fungi which produces the Aflotixins are likely to occur when the produce has been inadequately dried before being stored, or has been stored in damp or humid conditions.

Aflotoxins are not eliminated from food by ordinary cooking, and where oil is obtained from the product, such as corn oil or sunflower oil, the oil also contains the Aflotoxin contamination.

One of the major problems of reducing the Aflotoxin threat to human health is that there are many countries, including Kenya, which have not laid down any statutory maximum permissible levels of Aflotoxin contamination for either human or animal foods, and there is therefore no way of preventing manufacturers from selling contaminated food if they think they can get away with it.

CSO: 5400

KENYA

BRIEFS

MENINGITIS DEATHS--A meeting at Matayos Market being addressed by the Busia District medical officer, was interrupted by news that five villagers were dying from meningitis and the doctor had to rush patients to hospital 11 miles away. Dr Van Ashbeck had gone to the area with other health officials to educate the people on antimeningitis measure. The disease has killed seven local people. The assistant chief of Matayos, Mr. Okola, has said 20 people from the nearby Nang'oma Village have been admitted to Busia Hospital after complaining of severe headaches, stiff necks and spinal pains. A source close to the hospital said the symptoms were typical of cholera. He also confirmed that "some" people had died of meningitis but refused to say how many. [Excerpt] [Nairobi DAILY NATION in English 26 Sep 78 p 5]

CSO: 5400

LAOS

BRIEFS

LUANG PRABANG MALARIA SUPPRESSION--In late July 1978 the Luang Prabang Provincial Public Health Office continued to send mobile medical teams out to control malaria in Meuang [district] Luang Prabang and Meuang Siang Ngeun. During this period the teams distributed anti-malaria drugs to a total of 15,732 people and spread DDT to eradicate mosquitoes under the eaves of houses and along drainage ditches where mosquitoes live and breed. They also explained the three cleans health principles to people in each area. [Vientiane KHAOSAN PATHET LAO in Lao 16 Aug 78 p A 2] Malaria suppression in Luang Prabang is continuing. During this year's rice growing season, medical cadre under the jurisdiction of the Luang Prabang Malaria Suppression office went out into production areas in Meuang [district] Nan, Meuang Chomphet, Meuang Siang Ngeun and Meuang Phou Khoun. Wherever they went these fraternal medical cadre quickly examined and treated the people with a high sense of responsibility. During this period they took blood samples to be analyzed for malaria from 23,506 people, treated 4,797 people suffering from malaria and distributed anti-malaria drugs to 22,712 people. In order to eradicate the source of the malaria, the doctors also spread DDT on over 2,990 homes. They also explained methods of fighting malaria by preventing mosquito bites and regularly taking preventive drugs. As a result of this movement to control and prevent malaria, the disease endemic in these areas is steadily decreasing. [Vientiane SIANG PASASON in Lao 2 Aug 78 pp 1, 4]

MEUANG CHOMPHET HEALTH WORK--In June the Public Health Service of Luang Prabang Province sent a mobile sanitary team to cooperate with the sanitary agents of the [Meuang] Chomphet district in the fight against malaria in that area. They were able to restore 6,440 persons to health by distributing the proper drugs and informing the population on the three rules of cleanliness. The sanitary agents also vaccinated 16,000 persons from the Meuang Nan district and sprayed with DDT. [Text] [Vientiane BULLETIN QUOTIDIEN in French 15 Jul 78 p 3] 7993

CSO: 5400

MALAYSIA

EFFECTIVE CURE FOUND FOR SCRUB TYPHUS FEVER

Kuala Lumpur NEW STRAITS TIMES in English 16 Aug 78 p 7

[Article by Lim Eng Been]

[Text]

THE Institute for Medical Research has achieved a significant breakthrough in the treatment of scrub typhus fever with the use of a common antibiotic called "doxycycline".

The institute's director, Dr G. F. deWitt, said a dose of the drug could cure a patient within two days compared with the one to two weeks' course of the standard drug.

Dr deWitt said: "If the new treatment is adopted on a wide scale, the benefits could be in terms of millions of dollars as well as releasing scarce medical resources for other pressing needs."

The treatment, he said, not only reduced hospital stay by several days but also enabled the affected workers to return to full productivity very much earlier.

Prevalent

Scrub typhus is among the many forms of fever prevalent in the country and the research by the IMR has shown that it accounts for 20 to 25 per cent of cases of fever in rural areas in Malaysia.

The research has also identified scrub typhus as an "estate fever" accounting for up to eight per cent of fevers among oil palm estate workers.

He said local doctors at the Mentakab hospital co-operated with the IMR last year in the trial of a single dose of the drugs on patients and it was a complete success.

A total of 100,000 serological and immunological tests were carried out each year over the past three years, he said.

Doxycycline, like all other drugs, is imported and it is only with the IMR's research that it has been discovered as an effective cure for scrub typhus.

The \$4.5 million research programme carried out over the last three years has also pinpointed the country rat as the main transmitter of the disease.

The rat carries the chigger which in turn carries the virus.

Dr deWitt said: "It is significant that this is the first time in the world that this treatment has been used and the ultimate aim of the project is the development and testing of a vaccine."

Collaborative

"Fevers are major problems in rural Malaysia accounting for a significant proportion of hospital admissions and out-patients in main health centres," he said.

He said the treatment of fever was very expensive because patients had to be treated for "fevers of unknown origin" (FUOs) if the fever was not malaria or of known origins.

Formerly, he said, if a patient did not respond to a treatment for one form of FUO, he would be treated for another form of FUO until he responded.

"But we now know that the majority of fevers in the rural areas, particularly oil palm estates, are of the scrub typhus type and we can give the correct treatment immediately," he said.

The USAMRU of the IMR recently acquired a \$250,000 computer to assist in the recording and analysis of the vast amount of data collected in the work.

MALAYSIA

BRIEFS

DENGUE FEVER, CHOLERA--The number of Dengue hemorrhagic fever cases is rising and the situation has deteriorated since August. A fresh warning issued by the Ministry of Health said that in Negeri Sembilan, Johor, Malacca, Perak and Perlis more cases had been reported compared with last year. A ministry statement said that up to 30 September 25 people had died out of a total of 263 cases since the beginning of the year, compared with 26 deaths out of 285 cases for the whole of 1977. People are urged to destroy unwanted containers that could become breeding places of mosquitos. Meanwhile, the situation in cholera inflected areas in the Perak Tengah district has been classified as serious. Most of the cholera cases were the result of using river water without boiling it first. The affected areas are Kampung Batu Enam Belas, Kampung Lambur Kanan and Kampung Lambur Kiri near Parit. [Kuala Lumpur Domestic Service in English 0000 GMT 3 Oct 78 BK]

CHOLERA IN KELANTAN--An infant has died of cholera in Ulu Kelantan pushing up the death toll from the disease in Kelantan to 19. Three suspected new cases were also detected bringing to 16 the number of victims still being treated in hospitals. The number of confirmed cases and carriers since the outbreak was detected in April stands at 345 and 289 respectively. [Text] [Kuala Lumpur Domestic Service in English 1130 GMT 3 Oct 78 BK]

CSO: 5400

MEXICO

BRIEFS

ERADICATION OF DISEASES--The general director of epidemiology has stated that smallpox, cholera, yellow fever and typhoid--which are still public health problems in other parts of the world--have been eradicated in Mexico. He also said that the General Directorate of Epidemiology and the Health Department of Mexico are keeping a constant and strict watch to prevent the reentry of these diseases into the country. [Mexico City International Service in Spanish 0300 GMT 12 Oct 78 PA]

CSO: 5400

MOZAMBIQUE

BRIEFS

LASSA FEVER STUDY--An epidemiological study in the Zambeze Valley is being prepared by the National Directorate for Preventive Medicine to obtain data on the presence of the Lassa virus. This virus causes a type of fever known by the same name which results in hemorrhages and is often fatal. The research will be conducted both among the population and in the wilderness areas of the Zambeze region. The World Health Organization will be asked to collaborate in this research project. The above virus was isolated a long time ago and was proved to cause disease among humans. However, it has only been detected in countries of Western Africa like Nigeria, Liberia and Sierra Leone, where it is relatively rare. A few years later a team of specialists visited Mozambique and came across various types of virus similar to the Lassa virus; however, as far as is known, these species did not cause any disease among humans. These viruses seem to be of a new type and were described for the first time in a very recent study. [Text] [Maputo NOTICIAS in Portuguese 30 Sep 78 p 5]

CSO: 5400

NEW ZEALAND

DRUG RESISTANT VIRUS INTRODUCED FROM PACIFIC ISLANDS

Christchurch THE PRESS in English 25 Sep 78 p 7

[Text]

Drug-resistant strains of tuberculosis have been introduced to New Zealand from the Pacific Islands; according to a leading chest surgeon.

The physician-in-charge of Wellington Hospital's chest department, Dr J. B. Mackay, has called for special steps to contain the disease.

In an article in the latest edition of the "New Zealand Medical Journal" he has described an outbreak of tuberculosis at a Wellington School, which required urgent treatment for 38 pupils.

Doctors are warned against using traditional methods of treating drug-resistant Samoan strains of the disease. Dr Mackay advises them to take special steps when dealing with tuberculosis in Pacific Islanders, or people who may have acquired tuberculosis from a person infected in Samoa.

Strains of tuberculosis resistant to one or more of the anti-tuberculosis drugs have not been common in New Zealand in the past, Dr Mackay said.

"There is, however, a high incidence of drug-resistant tuberculosis in Western Samoa — 50 per cent of cultures tested showed drug resistance, and half of these are resistant to two or more drugs."

Dr Mackay believes that there is a high incidence of tuberculosis among

Polynesians resident in New Zealand. About 220 in 100,000 have the disease; this is 25 times the incidence found in Europeans resident in New Zealand.

Dr Mackay said that he visited Western Samoa in 1976, and found a high incidence of the drug-resistant strain. On returning to New Zealand, convinced that it was inevitable drug-resistant organisms would be introduced, he began a survey of all laboratories performing sensitivity tests.

The survey showed that the introduction of resistant organisms from the Pacific Islands had not been "much of a problem."

However, Dr Mackay said that the Wellington school outbreak showed the potential danger of the drug-resistant strain. A 16-year-old schoolboy was admitted to Wellington Hospital in March, 1977, with the drug-resistant strain, and by the time the outbreak was contained 38 people had been treated.

Two of the worst cases could easily have died if traditional drugs had been administered, Dr Mackay said.

He said that he faced an ethical dilemma in publishing the article. While it was virtually essential to inform doctors that special procedures were necessary, he feared that misleading conclusions could be drawn by the public.

CSO: 5400

NIGERIA

MALARIA STATISTICS REPORTED

Kaduna NEW NIGERIAN in English 3 Oct 78 p 11

[Article by Ibrahim N. Salihu, Yola]

[Text] **OVER 250 million people suffer from malaria fever annually, in Africa, and the death toll of the disease is about 2.5 million. In Gongola State alone, about 332 persons died of the disease between 1976-1978.**

These startling revelations were made by a Senior Consultant (public health) and Principal of the Medical Auxiliaries Training School, Mubi Gongola State, Dr. H. Bagchi.

He was addressing a seminar on primary health care organised by the state's Ministry of Health for the rural health staff working in the state.

He said, in 1976, about 9/3,317 persons suffered from the disease and 109 died out of the number. Similarly, 122,140 cases were reported last year and 127 died of the disease.

As for this year, however, Dr. H. Bagchi said, about 100,334 cases were reported out of which 96 persons died.

The principal also observed that with the help of large scale application of insecticides, malaria attack on people has been reduced to a certain degree. He nevertheless lamented that it was still a menace to developing

nations because they retard their development efforts.

He later enumerate some of the symptoms of the disease which included, feverishness, body ache and pains, anaemia, chilliness and spnomegally.

Earlier, the Principal Medical Officer (P.O.M.) preventive, Dr. Mohammed Arabi Tukur, condemned the idea of boiling and drinking neem tree leaves, because according to him, the resultant effect of the action was "internal heamorrhage".

He then explained the aims of the seminar as a way of involving all the state's 17 local governments in rural health care activities. It was also aimed at discouraging the general public from relying on herbal and other local medicines, rather than focussing their minds and attention on real health care.

The seminar was attended by health staff drawn from Yola, Fufure, Mayo-Balwa, Numan, Guyuk, Ganye and Zing, local government areas.

CSO: 5400

PANAMA

BRIEFS

REDUCTION OF MALARIA--A report issued by the National Service for the Eradication of Malaria indicated that in the first nine months of this year 119 local cases of malaria and 86 cases brought from other countries, particularly Colombia, have been treated. This represents a total of 205 cases in comparison with 552 reported for the same period last year.
[Panama City MATUTINO in Spanish 5 Oct 78 pp 1-b, 10-a PA]

CSO: 5400

PORUGAL

GASTROENTERITIS OUTBREAK IN ALENTEJO REGION

Porto O PRIMEIRO DE JANEIRO in Portugese 27 Sep 78 p 5

[Text] Over 200 cases of gastroenteritis were treated by the first-aid services of the Cuba Health Center between last weekend, when an epidemic outbreak of the disease was noted, and yesterday morning.

In statements made to ANOP [Portuguese News Agency], the Cuba public health representative, Francisco George, disclosed that three persons were admitted on Monday, and that yesterday morning, when 20 cases were treated, another patient was held for treatment. Thus, the total number of patients admitted thus far amounts to four.

Francisco George also noted that he had begun a detailed epidemiological survey, in collaboration with the Viana do Alentejo and Evora public health services, and that samples of the tap-water from Viana do Alentejo had been sent to the public health laboratories in Beja and Evora, for bacteriological analyses.

It is anticipated that the results of these analyses will be reported by 29 September.

In this connection, the Cuba public health representative told ANOP that the reports printed in a Lisbon evening paper claiming that the contamination of the water was of criminal origin "are speculative."

He commented: "It is impossible to make such an assertion at the present time, because we shall not have sufficient information with which to make a statement on the matter until after the analyses are completed."

Also, with regard to the news published in daily papers in the capital to the effect that doctors from other municipalities were sent to the Cuba hospital on an emergency basis when the epidemic outbreak of gastroenteritis was discovered, Francisco George stated that what happened was that, since it was Sunday, there was only one doctor on duty at the Cuba public health center.

He also noted: "This being the case, doctors and nursing personnel who were off duty came to the first aid service voluntarily."

Likewise in this connection, Francisco George praised all the medical and paramedical personnel of the Cuba public health center who came this far to work under an intensive system.

However, it should be recalled that this epidemic outbreak occurred last Sunday in Viana do Alentejo, and presumably originated with water that might have been contaminated in a well and pipe located in the suburbs of that town, to which many outsiders come to take part in the traditional feast of Our Lady of Aires.

The president of the Viana do Alentejo Chamber ordered the aforementioned water pipe shut off immediately.

Gastroenteritis, which is more properly known as gastrenteritis, is a combination of two ailments: gastritis and entritis; in other words, the inflammation of the mucous membrane of the stomach associated with intestinal inflammation.

It is typified by extremely severe pain and intense vomiting, and can lead to more serious peritonitis after a few days.

It is particularly serious and often fatal for nursing babies and physically debilitated individuals.

It is transmitted through spoiled food or beverages, but not from person to person.

2909
CSO: 5400

TANZANIA

BRIEFS

CHOLERA OUTBREAK IN MOROGORO--UHURU, the party-owned paper, today comments on cholera, which has hit Morogoro region again. It says for over a week now Morogoro region has been put under quarantine. It was recently decided to put Morogoro under quarantine again with effect from the 26th of last month, following the outbreak of cholera. [Excerpts] [Dar es Salaam in English to Central and Southern Africa 0400 GMT 4 Oct 78 LD/EA]

CSO: 5400

THAILAND

FLOODING CASUALTIES; CHOLERA OUTBREAK REPORTED

Bangkok POST in English 4 Oct 78 p 1 BK

[Excerpt] Tropical Storm "Kit" has left a trail of death and destruction, with 36 people reported drowned and two missing in the worst hit provinces of Chaiyaphum, Khon Kaen, Kamphaeng Phet and Nakhon Sawan.

Meanwhile, swirling flood waters rushing down from the north have combined with high sea tides to cause the Chao Phaya River to overflow its banks and cause inundation of lowlying areas.

Deputy Prime Minister Sunthon Hongladarom said yesterday that 10 people died in Kohn Kaen, 11 drowned in Chaiyaphum and 13 perished in Kamphaeng Phet while the flood relief centre reported two dead in Nakhon Sawan and two missing in Khon Kaen.

In Udon Thani Province, official reports confirmed that nine persons, including three children, have been found to have contracted cholera and two have already succumbed to the disease. The cases of cholera were discovered at Ban Se at Tambon Nong Bua in Muang district, the reports said.

There was no report of similar cases in other areas but health officials have already taken precautionary steps by giving injections to residents living in the stricken area to prevent the spread of the disease. About 7,000 persons have been given inoculations which involves five village towns and three schools, the officials said.

Officials said cholera discovered in Muang district was of a particularly strong type called El Tor Ogawa but they assured that there is no danger of the disease spreading to other districts as the situation is now under control.

In yesterday's statement to the press, the deputy prime minister said that the Cabinet yesterday empowered the Public Welfare Department, the under secretary of state for interior and the interior minister to authorize flood

relief payments of up to 300,000 baht, 600,000 baht and 1 million baht respectively. He continued that the 40-million baht emergency fund allocated in the new fiscal budget would be used to assist flood victims, both during and after the floods.

CSO: 5400

ZAIRE

BRIEFS

CHOLERA EPIDEMIC THREAT--Cholera has killed nearly 1,000 people since June in the Kivu Province of Eastern Zaire, according to the Belgian newspaper LE SOIR which quoted Belgium's chief of medical aid to Zaire as saying the country ran the risk of a "dramatic spread" of the disease if preventive measures were not taken. Medical assistance would be more effective if Zaire officially recognized that the situation was catastrophic and launched a "veritable appeal for international aid," the doctor was quoted as saying. The newspaper reported that poor on-the-spot coordination of medical supplies and lack of money were hampering efforts to combat the epidemic. It said 1,000 people had caught the disease in the last week of August in areas surrounding Lake Kivu, at the border with Uganda and Rwanda. Of this total, 84 died. [Text] [London WEST AFRICA in English 2 Oct 78 p 1972]

CSO: 5400

ZAMBIA

STATISTICS REPORTED ON CHILDHOOD DEATHS FROM 'KILLER DISEASES'

Lusaka SUNDAY TIMES OF ZAMBIA in English 1 Oct 78 p 1

[Text]

A TOTAL of 2,865 children under the age of five in Kitwe died from malnutrition, measles and three other killer diseases between 1972 and 1977.

This high rate of child mortality represented 90 per cent of the deaths reported to the council since 1972 but the mortality rate had since been reduced to 75 per cent, according to the council's medical officer of health, Dr Kawaya Kamanga.

He named the other killer diseases as pneumonia, prematurity and gastro-entritis (diarrhoea).

Dr Kamanga said, in an interview this week, the diseases were responsible for nine out of every ten children who die under the age of five.

The council had now embarked on intensive promotive health services based on more sustained health education of mothers and covered all the townships and squatter settlements, Dr Kamanga said.

Through this programme the council was now saving 15 children for every 100 deaths to live beyond the age of five years. This had

been achieved within a period of five years.

According to the council statistics, 90 per cent of the deaths which occurred between 1972 and last year were of children under five years of age.

In 1972 there were 1,002 deaths reported in the whole town. Of these 629 were of kids under the age of five.

In 1975, the number of deaths dropped to 961 and of these 681 were children while in 1976 out of 996 deaths 657 were of infants.

In 1977 the death rate rose to 1,409, in 1977 with 898 of the dead being below the age of five.

Dr Kamanga said all the five diseases responsible for the deaths could be minimised through community health action. The council had concentrated itself on preventive measures against the diseases.

The town, he said, had a population of nearly 90,000 children below the age of 15 years and 42,000 women in reproductive age group (15-45 years).

"It is to this vital segment of the population that health services are geared to," Dr Kamanga said.

In general terms, more people now lived beyond the age of 35 than was the case five years ago.

CSO: 5400

ZAMBIA

IMMUNOLOGIST CLAIMS DISCOVERY OF TRYPANOSOMIASIS VACCINE

Lusaka ZAMBIA DAILY MAIL in English 3 Oct 78 p 1

[Text] A vaccine which is able to immunise human beings and domestic animals against trypanosomiasis (sleeping sickness) has been discovered by a local scientist at the University of Zambia.

This major breakthrough in medicine will come as a relief to many African governments because the disease has been able to eradicate cattle and other livestock from large areas which has had a devastating effect on the health, economy and history of Africa.

The man behind the discovery of the vaccine is Dr Curtis Powell, an Afro-American biochemical immunologist with UNZA's School of Medicine. Already he has been able to immunise animals against this disease.

Dr Powell researched for 5 years on the project using broken fractions of the tsetse fly itself. He discovered that a fraction which he termed "Fraction 3" gave immunity across more than one species. This is the first time that this has been demonstrated in the world.

"Dr Powell's findings have been partially confirmed by an independent laboratory and this suggests that it may be possible to effectively immunise man and animals against sleeping sickness," a university spokesman said.

Sleeping sickness is [a] disease endemic to the African Continent and is transmitted to humans and animals by the tsetse fly.

In East and Central Africa, in particular, millions of people are believed to have died from sleeping sickness.

The spokesman added that wild life which acts as a reservoir for the trypanosome species, are largely immune to the disease.

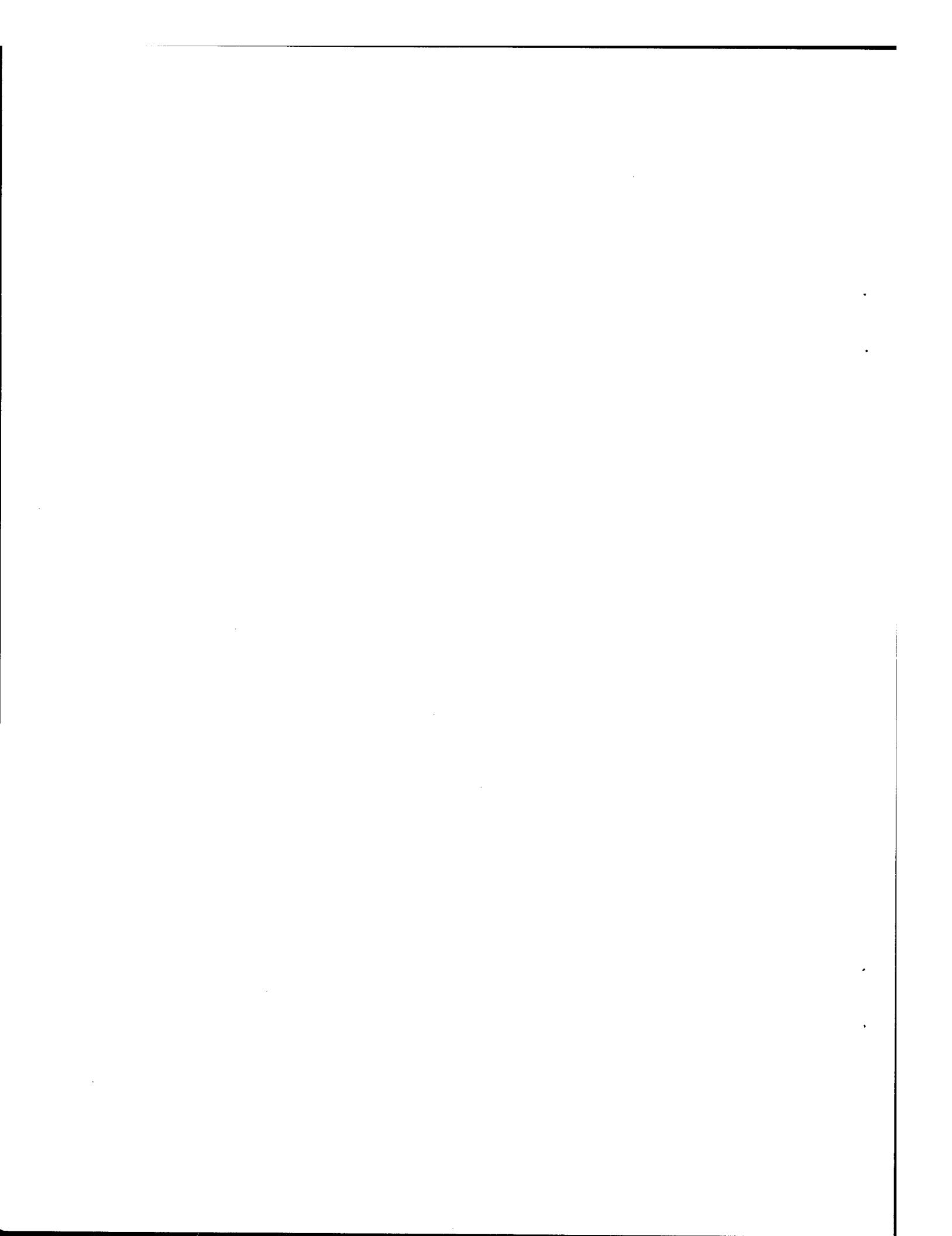
"However, cattle and livestock have been eradicated from large areas which has had a devastating effect on health, economy and history of Africa. Although much of the land is fertile or suitable for livestock development, or both, it nevertheless remains unsuitable for breeding livestock," he said.

ZAMBIA

BRIEFS

TSETSE CARRIES OWN ANTIDOTE--Lusaka--A substance extracted from the tsetse fly had been found here to have the properties of a vaccine against trypanosomiasis (sleeping sickness), the University of Zambia announced this week. The substance, discovered by the university's immunologist, Dr Curtis Powell, was an effective vaccine for humans and animals alike, the announcement said.--Iana. [Text] [Salisbury THE HERALD in English 4 Oct 78 p 7]

CSO: 5400



INDONESIA

FOOT- AND-MOUTH DISEASE IN RIAU PROVINCE

Jakarta SINAR HARAPAN in Indonesian 1 Aug 78 p 3

[Article: "Fifteen Carabao Dead in Riau of Foot And Mouth Disease"]

[Text] Fifteen carabao have died and 103 have been put to death as a result of Foot-and-Mouth disease which has infected three subdistricts in the Kampar district. Forty one other carabao have been given antibody vaccine.

The Riau province Animal Health Inspection Service [AHIS] in a report given to the press on 29 July said the foot and mouth disease epidemic, which is thought to have come from another region, has been spreading since 4 July in the form of *pasteurella multocida bacillus*.

Carabao infected have high temperature, a fast pulse rate, muscle spasms, weakened bodies coupled with stiff body hair, uneven body heat, a lack of appetite/rumination, urine mixed with blood and mucus and breathing difficulty which can end in death.

To stop the spread of the infection, 11 Riau AHIS officials have been sent to the Siak Hulu, Bangkinang and Kampar subdistricts to give vaccinations.

Using what is called the ring system, the officials have isolated the animals infected by the disease to stop its spreading. 8,000 of the 10,000 carabao there have been vaccinated to give protection for 1 year.

In addition, within a short time, Veterinarian Dr Masri Hanafi from the Dir Gen of AHIS is expected to arrive to check on the spread of the disease.

One of the difficulties faced by officials in carrying out the vaccination program has been the beliefs held by some of the carabao owners who prefer traditional medicine. They don't want their animals injected because they put more faith in the use of charms to ward off infection. These are in the form of various colored flags.

In addition, in some places a very primitive system of animal husbandry is carried on without any concern for methods which guard the animals health.

Another problem is that the infected areas are usually isolated and difficult to reach.

According to the Riau AHIS no less than 9,000 doses of vaccine have been prepared to help stop the epidemic. This will be further increased too.

7785
CSO: 5400

LAOS

BRIEFS

KHANTHABOULI VETERINARY WORK--During the first 6 months of this year, the veterinarians of the [Meuang] Khanthabouli district, Savannakhet Province, vaccinated 4,000 buffalo, 1850 oxen, 1,400 hogs and restored 100 draft animals to health. They also gave out information on modern breeding methods. [Text] [Vientiane BULLETIN QUOTIDIEN in French 13 Jul 76 p 2] 7993

OUTHOUMPHON VETERINARY WORK--Last May the veterinary team of the [Meuang] Outhomphon district, Savannakhet Province, made a round of visits at which time they vaccinated 4,523 buffalo, oxen and hogs, and restored 46 sick animals to health. In addition, they gave out information to the population regarding modern breeding methods. [Text] [Vientiane BULLETIN QUOTIDIEN in French 6 Jul 78 p 2] 7993

CSO: 5400

URUGUAY

GOVERNMENT TAKES MEASURES AGAINST SWINE FEVER

Presidential Decree on Prevention Measures

Montevideo EL DIA in Spanish 17 Aug 78 p 15

Text7 In agreement with the ministers of Agriculture and Fishing, Interior, Economy and Finance and National Defense, and of Transportation and Public Works, the president of the republic has issued the following decree. Whereas: the presence of African swine fever has been confirmed on the American continent.

Considering: 1) that it is necessary to take urgent and drastic steps to preserve national production, an important part of our agricultural wealth. 2) it to be fitting that all institutions, services and the people in general cooperate to prevent the entrance of this disease into the country and its erradication, in case it does occur, the president of the republic decrees:

Article 1: A state of national health alert is declared with regard to African swine fever, and all steps should be taken, nationally and at the borders, to prevent the introduction of this exotic disease into the country and to eradicate it in case this does occur.

Article 2: Every proprietor, owner or responsible person, to any authority or veterinarian, has the obligation to report the presence of any disease among swine that is highly lethal or morbid.

Article 3: All swine, upon weaning, should be vaccinated against classic swine plague within the time limit prescribed by the General Administration of Veterinary Services' Board of Animal Health.

Article 4: So as not to allow the introduction of pork products into the country, customs authorities will order a thorough check of travelers' baggage.

The Veterinary Services of the Ministry of Agriculture and Fishing will be able to order an exhaustive search and the confiscation of baggage when it is considered necessary.

Any material that is eventually confiscated must be subjected to the most urgent process capable of destroying the African swine fever virus, in the judgment of the Veterinary Services of the Ministry of Agriculture and Fishing.

Article 5: The General Administration of Veterinary Services will determine what border crossings will be permitted only partially and which ones will be closed, as well as what measures for washing and disinfecting will be required for vehicles and persons entering the national territory.

Article 6: Upon the approval of this decree, it will be prohibited to keep animals permanently in airports with international traffic and to keep swine up to a distance of one kilometer from the boundaries of the Carrasco International Airport.

Article 7: Bringing animals into national territory through any airport except Carrasco International is prohibited except for animals that normally accompany passengers.

Article 8: All garbage from airports and ports must be destroyed and it is absolutely prohibited to collect it and remove it from the area. The proper authorities will take the most rigorous steps with these waste materials.

Article 9: Beginning 30 days from the publication of this decree, the shipment of swine and pork derivatives is prohibited, except for those especially authorized by the General Administration of Veterinary Services, in the departments of Artigas, Rivera, Cerro Largo, Treinta y Tres, Rocha, and the Eleventh Police Section of Salto, as well as having swine, for any reason, in the border customs zone.

The minister of Agriculture and Fishing will be able to extend these measures to other geographical areas of the national territory if it is necessary.

Article 10: The Administration of Animal Health of the General Administration of Veterinary Services, and the rest of the proper authorities are authorized to confiscate immediately any animal that is found in infraction of the rules of the present decree, without right to any indemnity.

The Ministry of Agriculture and Fishing will regulate the fate of the animals confiscated, as well as the beneficiaries with respect to the meat obtained or the proceeds of their sale.

Article 11: The Board of Animal Health of the General Administration of Veterinary Services is authorized to direct that any animal be sacrificed if, even though it meets the terms of the present decree, it is considered a sanitary risk.

The above-mentioned Board is also authorized to enforce all the health measures ordered in article 6 of Law No 3606.

Article 12: The General Administration of Veterinary Services can take other sanitary measures that it considers immediately urgent, reporting to the Ministry of Agriculture and Fishing within 24 hours.

Article 13: The National Administration of Inspectors of Livestock, Fruits, Trademarks and Brands (DINACOSE) will take the appropriate steps to obtain information on the nation's swine population, especially and urgently in the departments of Artigas, Rivera, Cerro Largo, Treinta y Tres, Rocha and the Eleventh Police Section of Salto.

Article 14: Hunting of wild pigs and wild boars is permanently authorized, subject to the conditions that the Ministry of Agriculture and Fishing may direct.

Article 15: The ministries of National Defense, Interior, Economy and Finance, Transportation and Public Works and the municipal governments will offer the broadest cooperation to health authorities in enforcing the present decree, in whatever is required for them to carry out its terms faithfully.

Article 16: This decree will go into effect as soon as it is published in two of the capital's daily newspapers.

Article 17: Be it published, etcetera.

Detection of Clandestine Swine Breeders

Montevideo EL DIA in Spanish 18 Aug 78 p 7

Text7 In view of the prospect of possible epidemics that could easily originate from clandestine swine breeders, the Montevideo municipal government has directed that the search for them be intensified through the Service of General Inspection.

Knowing that on those breeding farms, the swine are fed with household garbage, the common inspectors' brigades will keep a permanent watch on the transportation of surpluses from restaurants, grills, inns, bars, etcetera, in order to find out whether it is being done within the measures in effect regarding hygiene and also the destination of that garbage.

As a result of this vigil, several garbage trucks were detained when it was proved that they had violated existing prohibitions.

Also, the campaign for sanitation has been extended to scavengers who rummage in domestic garbage cans. Ordinarily combatted during the day, they had begun to act at night and in the pre-dawn hours. From the considerable number of violators, authorities seized 25 vehicles (carriages and small cars) that were being used. This was done in order to prevent the repetition of illegal appropriation of garbage left out in receptacles or packages to be picked up by municipal garbage collectors.

Inspection of Businesses

Community authorities have also intensified work to detect violators of health ordinances in hotels, restaurants, grills and similar businesses, warning the proprietors to eliminate immediately any irregularities that are proved. Very serious cases caused 18 closings. From now on, this kind of inspection will be maintained permanently by Public Health Inspectors of the capital.

Warning of Prohibition

In the face of recent proliferation of the illegal use of ornamental public trees and electric light poles in order to put up posters or billboards and other items of commercial propaganda, the Inspector General of the Municipality of Montevideo yesterday issued a warning to those who have made a habit of this irregularity. Decisive regulations currently in effect prohibit the use by private citizens, in any way, of objects used by the city to adorn its streets or its public service installations.

From now on the violation of these regulations will be strictly censured.

8631
CSO: 5400

INTER-AFRICAN AFFAIRS

BRIEFS

DESERT LOCUST CONTROL MEASURES--The fight to stop desert locusts is still going on in several parts of Ethiopia and Somalia, the Desert Locust Control Organisation for Eastern Africa said yesterday. The organisation's director, Mr Adafris Bellehu, commended the Nairobi Meteorological headquarters for helping the war by giving early warnings on the change and direction of wind pattern "which is the logical indication of displacement of the locusts that might have escaped." Mr Bellehu said strict control measures were being carried out in Ethiopia but there was a possibility more locusts were hidden in inaccessible areas. He said low clouds and heavy rains had made spraying difficult. There were unconfirmed reports of swarms over vast areas of Somalia, the director said. The swarms were expected to move south to breeding areas. No control measures were possible except aerial surveys which indicated good rainfall over vast areas with floods in breeding grounds. [Text] [Nairobi DAILY NATION in English
29 Sep 78 p 31]

CSO: 5400

AUSTRALIA

BRIEFS

FLEAS TO BE RELEASED--Melbourne--About 12,000 fleas will be released in about two weeks at Red Cliffs, near Mildura, to help spread the disease myxomatosis in wild rabbits. The fleas--introduced from Europe--have been specially bred at the Keith Turnbull Research Institute in Frankston, Melbourne, and will breed only on rabbits. A spokesman for the Vermin and Noxious Weeds Destruction Board said: "In the long term, it is expected that the flea will exert a useful controlling influence on rabbit numbers, especially in less accessible areas where alternative methods of control cannot be used."
[Text] [Perth THE WEST AUSTRALIAN in English 25 Sep 78 p 4]

CSO: 5400

INDONESIA

COCONUT PALMS IN EAST INDONESIA REPORTED RAVAGED BY PESTS

Jakarta KOMPAS in Indonesian 26 Jul 78 pp 1, 12

[Article: "Millions of Coconut Trees Are Attacked by Various Pests"]

[Text] About 6.5 million of the 8 million coconut palms in East Nusa Tenggara are unproductive as the result of an attack of "Kumbang Kelapa" (Oryctes Rhinoceros) during the past several years. Fifteen percent of the palms have been attacked each year. Meanwhile, in Central Java, 82 percent of the 31 million cultivated trees have also been attacked by the same pest.

Umbu Purawoha, chief of the Small Holders Estates Service of Nusa Tenggara, said two other pests damage Nusa Tenggara coconut plantings, namely, the "Kuto Kapok" pest (Aleocharus Destructor) and the "Ngengat Bunga-kelapa" pest (Batrachedra Arenosella). He reported this to the Nusa Tenggara governor, Dr Ben Mboi, on Saturday, 22 July, in Ende.

The Ngengat Bunga-kelapa pest, according to Purawoha, has attacked about 45.8 percent of all plantings. This pest is found in the Manggarai, Ngada, Ende, Sikka, Flores Timur, Kupang, East Sumba and West Sumba regencies. The Kutu Kapok pest has attacked 24 percent of the coconut plantings in Manggarai, Ngada, Ende and Sikka.

According to Purawoha, a joint survey was conducted by a team of experts from the Estates Directorate General, the Industrial Crops Research Institute (LPTI, Bogor), IPS [Indonesian Production Supply], the Agricultural Faculty of the Sam Ratulangi University in Menado and the staff of the Nusa Tenggara Estates Service. It found the three pests.

Two Billion Rupiah Annually

The report forwarded by Purawoha to the opening ceremony for the first operation to combat the Nusa Tenggara coconut pests in 1978-79 in Paupanda Village, Ende Regency, said that damage resulting from this attack amounted to about 2 billion rupiah annually, a loss of 49.4 percent of potential production.

Purawoha said efforts were made initially in 1969 to combat the chronic pest attack. About 800,000 coconut plantings in the Ngada Regency were sprayed.

In 1973 similar efforts were made in Ende to save more than 1 million coconut palms from the Ngengat Kelapa pest.

In 1970 research was conducted on the parasites in three laboratories in Ngada to find an agent which could be used against the Ngengat pest.

The government, through further efforts, allocated 104 million rupiah to suppress pest outbreaks, and every coconut farmer was made responsible for taking care of his own trees.

Courses are held to provide anti-pest information to coconut farmers, but it is not known how much this instruction has helped them to save their trees.

Tens of Millions of Trees Attacked

The attacks by various coconut pests, which cause a loss of production amounting to tens of millions of coconut palms in a number of regions, is certain to affect Indonesian copra production.

In 1977 the minister of agriculture (then Prof Dr Thoyib Hadiwijaya) said more than 3 million [sic] coconuts are produced. Of that total, only 500 million are used for copra, and the rest are used for household purposes. According to the minister, copra production has dropped from year to year.

Recently, attacks by coconut pests have increased in a number of regions. In Central Java, for instance, 82 percent of the 31.8 million coconut palms there have been attacked by the Oryctes Rhynoceros pest, which also attacked trees in Nusa Tenggara. The annual loss resulting from these attacks amounts to 9 billion rupiah.

According to T.M.T. Aritonang, chief of the Coconut Protection Service Sub-unit of the Central Java Estates Service, only incidental efforts have been made to combat these pests, and these have been taken only because coconut farmers continued to press for them. According to Aritonang, there is very little money available to combat pests. For the next 5-year period, Central Java needs 600 million rupiah to eradicate Oryctes Rhynoceros.

Another pest, the "Hidari Irava," which multiplies rapidly, attacks palms in the Purworejo Regency, Central Java. An estimated 40,000 of the 3.4 million palms planted in the region have been attacked by this pest. Reportedly, this pest could attack trees in Yogyakarta if care is not taken quickly.

The "Ulat Siput" pest is worrying coconut farmers in the Minahasa Regency now. About 1,500 hectares of coconut plantings (about 50,000 trees) in four subdistricts have fallen prey to the Ulat Siput. This pest attacks the coconut leaves, leaving only the trunk and the palm leaf ribs on the tree. Although efforts have been made to eradicate this pest, Engineer F. H. Litouw, chief of the Protection Service Subunit of the Estates Service of North Sulawesi, cannot offer assurance that any results have been achieved. The "Sexava" pest still ravages trees in Talaud Island, Sangir Talaud Regency.

According to a KOMPAS source, in addition to efforts made to rejuvenate or replace palms, efforts to combat these pests must be heightened without waiting for farmers to urge that such measures be taken, as has happened in Central Java. Thought should be given to increasing the funds needed for these purposes so that the coconut crop, a monoculture in many areas, can be saved.

6804
CSO: 5400

LAOS

BRIEFS

MEUANG SOUKHOUMA PEST ERADICATION--Caterpillars, leaf hoppers, and plant lice have recently been destroying rice fields in Taseng [canton] Soukhouma and Taseng Khoksa. Upon receiving this news agricultural cadre in Meuang [district] Soukhouma, Champassak went to work with people in these locations to eradicate crop-destroying pests. In the interests of speed they divided into teams to spread pesticides. Work has been completed on 32 hectares of rice fields. [Vientiane KHAOSAN PATHET LAO in Lao 15 Aug 78 p A 4]

LUANG PRABANG PEST ERADICATION--In early July officials of the Luang Prabang Provincial Agriculture Office sent technical cadre supplied with a quantity of pesticides to work with farmers in three districts, Meuang [district] Hgoi, Meuang Oudomsai and Meuang Chomphet, to suppress insect pests destroying rice plants and other crops. Within a short time they were able to save many hectares of rice plants ravaged by caterpillars, plant lice and crabs. These agricultural cadre are now actively continuing their pest eradication efforts. [Vientiane SIANG PASASON in Lao 16 Aug 78 p 1]

CSO: 5400

NEW ZEALAND

FUNGUS SUSPECTED KILLER OF FOREST VEGETATION

Auckland THE NEW ZEALAND HERALD in English 19 Sep 78 p 2

[Text]

Kaikohe

Although it has not been definitely proved, a fungus called *phytophthora cinnamomi* seems responsible for killing many kauris in the Waipoua Forest.

The kauri management officer for the Auckland conservancy, Mr R. C. Lloyd, of Kaikohe, said there was as yet no cause for alarm, however.

The Forest Service had been investigating the damage since 1971 and was

keeping a careful watch on the situation.

The fungus was known to be present in most soils where kauri grew.

"It is not specifically associated with kauri," he said. "It has been shown to be associated with a range of indigenous trees, shrubs, grasses and exotics, including radiata pine."

Mr Lloyd said there was experimental evidence that 67 species of introduced and indigenous plants were susceptible to infection by the fungus.

"It is widely distributed in New Zealand and is

believed to be indigenous," he said.

The cycle of host, pathogen and the right conditions resulted in the fungus doing damage.

"Standard health and soil conditions are two conditions that must play their part in the relationship between the fungus and its reaction upon the vegetation above it," said Mr Lloyd.

But the relationship could be very complex.

The fungus was mainly responsible for root rot in seedlings in the Forest Service kauri nurseries,

causing considerable losses at times.

In any forest where kauris were dying, the fungus would be an associate factor.

A similar pathogen, *phytophthora heveae*, was believed to be responsible for some kauris dying on Great Barrier Island.

Although large numbers of the kauris were dead or dying in Waipoua Forest sanctuary, they would not be available for milling, Mr Lloyd said.

The 22,000-acre sanctuary was inviolate for all time.

CSO: 5400

NIGERIA

BRIEFS

PEST CONTROL--A well-equipped modern pest control laboratory complex is to be established in the Cross River State for produce inspection during the current development plan period. The laboratory complex which will be sited in Calabar will incorporate the produce inspectors' training school and aid pest control on stored produce. Professional staff to man the institution are already being trained both in the country and overseas.
[Text] [Lagos DAILY TIMES in English 4 Oct 78 p 32]

CSO: 5400

PAKISTAN

BRIEFS

LOCUSTS IN SIND--Karachi, 10 Oct (AFP)--Aerial spraying of insecticides was being conducted to destroy a huge swarm of locusts which entered Sind province from the Indian Rajasthan desert, officials said here today. The swarm spreading over 25 kilometers (15 miles) was threatening rice and cotton crops in Pakistan's southern province. [Text] [Hong Kong AFP in English 1340 GMT 10 Oct 78 BK]

CSO: 5400

PORUGAL

BRIEFS

SWINE PEST REPORTED--During the past few days, the number of cases of swine pest discovered in the Portela do Vade area of the municipality of Vila Verde has been increasing. The pest, which has already caused the death of some animals, is a cause for concern among the local farmers.
[Text] [Lisbon O DIA in Portuguese 25 Sep 78 p 14] 2909

CSO: 5400

SWEDEN

CONQUERING SPRUCE BARK BEETLE INFESTATION

Stockholm DAGENS NYHETER in Swedish 24 Sep 78 p 32

[Article by Sven Hallen]

[Text] "Northern Varmland's forests will not be cut clean," the forestry board in Karlstad assures us. A suggestion by a private forest owner in Dalby in the heavily infested Stolletom area to set aside the forestry laws and carry out an emergency felling, has practically been rejected. Instead, stiffer measures are to be taken against the devastating eight-toothed spruce bark beetle. This year, progress has been made with the aid of pheromones, a fragrance for luring the insect, and the hope is that this successful tactic will be continued.

"The spruce bark beetle is a small beetle that lives everywhere. It becomes a pest only when it multiplies in such numbers that the fallen branches it normally lives on are not sufficient. Then it begins to attack living spruce trees, and here in northern Varmland we have had heavy infestations for eight years," says forester Rolf Berglind, head of the forestry division of the province's forestry board.

"It was the great losses during the wind storms of 1969-70 that gave the spruce bark beetle such a rich food supply in the form of fallen trees, that it became a nuisance. The most ravaged areas are Norra Ny in the Stollet area in the northern part of the province and Eda in the western part. During the eight years since 1970, over 2.5 million living spruce trees have been killed, causing approximately a million cubic meters of timber to depreciate in value. To be sure, the bark beetle and its larvae attack only the spruce trees' bark, and the dead trees can usually be utilized, but forest owners receive only pulp prices for timber that would otherwise sell at lumber prices, meaning a loss of about 80 kronor per cubic meter."

Tax Burden

About half the infested forest areas, around Billerud-Uddeholm, belong to companies, and half belong to farmers. For forest owners, the obligation

of removing trees killed by beetles means an additional tax burden, since the profit cannot be spread over several years, as usually is the case: a larger proportion of income from the forests goes to taxes when it comes in large quantities at one time.

The beetles are being fought by laying out "traps"--felled spruce trees placed where the bark beetles are most prolific. Then the eggs laid by the female in the spring are destroyed. During these eight years, land-owners have set out nearly a million cubic meters of timber. They are required by law to participate in combating the beetle, but their efforts have been a little uneven in places. This year, however, participation has been high. Forest owners receive government subsidies covering 75 percent of the costs for the campaign.

Fragrance

This year greater success than before has been noted, since we have gained access to a fragrance, a "pheromone" that lures the bark beetle to the traps. In all, we have set out 28,000 dispersers of the fragrance, and in this way the bark beetle population can be concentrated to certain areas, and then effectively controlled.

We are using the pheromone method by permission from the product control board, but we are hoping for a dispensation for next year as well, and thus the prospect of stopping the attack, even if it takes several more years.

Neither we in the province's forestry board nor the national forestry board have wanted to take up the suggestion of a private forest owner in the Stolle region, to set aside the forestry law and declare all of northern Varmland an "emergency area" and cut the entire surface clean--i.e. not only the older growth, ready for felling, but also damaged and young trees. If the suggestion is brought forward again, it should go directly before the forestry board. It is supported neither by the Forest Owners' Association nor the forest industry.

Delays

The fellings that have had to be carried out in the bark beetle infested areas have, nonetheless, been great, at least locally, and replanting is becoming a problem. In this respect, there are certainly delays in some areas, even though the law prescribes replanting within three years after cutting. Some forest owners consider that they have no personal interest in replanting, but there should be some improvement with the 1975 regulation requiring application for final cutting, which gives better possibilities for control. Another matter is the fact that resources for control are hardly what they should be.

A welcome new aspect in the otherwise antiquated forestry law is that, from this year on, land owners are required to clear the land better after

fellings. If only the regulations are followed, feeding conditions for the bark beetle should eventually deteriorate, and the risk of infestation decrease. But here, too, much depends on control.

Broader Front

Preparations for next year's campaign have already begun with aerial charting of infested forests in the province. We also hope to proceed on a broader front, if only we get the resources. The need for this becomes apparent, perhaps, from the total yearly losses caused by insect infestations throughout the country--700 million kronor. Of this total, the spruce bark beetle is responsible for about 100 million, and the more insidious, but economically equally damaging pine chafer, which attacks the pine, answers for a like sum. So far, the forests of Varmland have been worst hit, but infestations have also appeared in the Vasternorrland, Orebro, Kopparberg, and Alvsborg provinces.

9336

CSO: 5400

ZAMBIA

WHEAT EATING BIRDS INVADE FIELDS

Lusaka ZAMBIA DAILY MAIL in English 29 Sep 78 p 7

[Excerpt]

HUNDREDS of wheat eating birds - quilea, have invaded Zambia's wheat fields resulting in farmers losing thousands of Kwacha.

The percentage of wheat eaten by the birds in the fields continues to rise by an alarming rate of 10 per cent each year because of lack of effective chemicals to get rid of them.

A prominent Chisamba farmer, Mr Bruce Landless, said in an interview that he personally has lost a lot of wheat in the fields this year due to the birds that have invaded his wheat fields.

He said the birds were multiplying at an alarming rate and the percentage of wheat eaten by birds has gone up by about 15 per cent higher than last year.

The birds have been flocking to Zambia in large numbers from East Africa during recent years where they were being eliminated from the fields by the use of chemicals.

The wheat eating birds get killed by a special kind of chemicals which are spread in nearby trees around the fields by planes.

However, it was early this year when it was announced by Rural Air Services (RAS) a subsidiary of the Rural Development Corporation that it would carry out a bird eradication programme in wheat fields on experimental basis, but up to now nothing has been heard about the experiment.

CSO: 5400

ZAMBIA

BRIEFS

INSECT, RAT DAMAGE--Eighty-eight different species of insects destroy Zambia's crop production in the field, through transit and in storerooms. Most of these insects which attack stored food belong to the celopteran and lepidopteran groups. This is contained in a paper presented by Mr E.M. Sakufiwa of the Ministry of Lands and Agriculture, to the first grain conservation seminar currently taking place in Lusaka. Mr Sakufiwa said post-harvest losses occurred, among others, through rat damage in the field and storage. Two species of rats, the multimammate and ratusnalensis, invade fields and farm buildings where they cause enormous damage to foodstuffs before and after harvest, he said. [Excerpt] [Lusaka SUNDAY TIMES OF ZAMBIA in English 30 Sep 78 p 2]

CSO: 5400

END